

alcohol, evaporated and then exhausted the alcoholic extract by means of ether; the latter deposited perfectly colourless crystals of urea, which was partially converted into nitrate. This result induced M. Wurtz to extend his researches to lymph. Having procured, through the kindness of M. Colin, the lymph of the dog, the cow, the bull, and the horse, he ascertained in them the presence of urea. It further appeared of interest to compare the quantities of urea contained in the blood, chyle, and lymph of the same animal. For this purpose it was necessary to undertake certain quantitative researches, which were accomplished by means of a process which it would be too long to explain, but which is essentially founded on a combination of the methods which MM. Liebig and Bunsen have proposed for the determination of urea. The following table presents the numerical results obtained in these researches:—

NAME OF ANIMAL.	DIET.	QUANTITY OF UREA CONTAINED IN 1000 GRAMMES OF		
		Blood.	Chyle.	Lymph.
Doe	Flesh	0.089	...	0.158
"	" . . . . .	...	0.183	...
Cow	Dried lucern	0.192	0.192	0.193
Bull	Lucern and rape-cake . . . . .	...	0.189	0.213
"	Oil-cake before rumination . . . . .	...	...	0.215
Ram	Ordinary diet—rumination suspended {	(arterial) } 0.280	0.280	...
Sheep	" " " {	0.248 } ...	0.071	...
Horse	" " " {	...	...	{ 0.126 0.112

M. Wurtz adds, that having had occasion to analyze a certain quantity of chyle properly so called, collected along the course of the mesenteric chyloferous vessels, after the ganglions, he ascertained there also the presence of a small quantity of urea. This is no doubt derived from the changes of tissue which are effected in the walls of the intestine itself.—*Edin. Med. Journ.*, Dec., 1859, from *Comptes Rendus de l'Acad. des Sciences*, July, 1859.

MATERIA MEDICA AND PHARMACY.

4. *Saccharated Lime*.—Lime dissolves in water in much larger proportion in presence of sugar, and this solution is strongly recommended as a tonic and antacid by Dr. JOHN CLELAND (*Edinburgh Med. Journ.*, August, 1859).

Dr. C. gives the following formula for its preparation:—

"Slake 8 ounces of quicklime; rub up with it 5 ounces of white sugar; add 1 pint of water; stir for some time, till the hard stiff masses which the sugar and lime are liable to run into are as much as possible dissolved; then filter. The product should be perfectly clear, and of only a slightly yellowish tint. A solution made in this way will contain 18 grains of lime in every ounce by weight, and altogether about 106 grains of solid matter to the ounce. Taken undiluted, a few drops are sufficient to roughen the tongue. When diluted, the taste is at first an acrid one of lime; but this is immediately replaced by a sweet taste in the back of the month, admitted to be pleasant. Made as just recommended, the solution is not liable to decomposition unless it is exposed to the air. By employing a smaller proportion of water to lime, a still stronger solution may be obtained, but not with any practical advantage, as there is increased difficulty of filtration and greater tendency to decomposition."

This preparation, Dr. C. states, "is, of course, a powerful antacid, and probably the best we have, since it is stronger and pleasanter than magnesia, and does

not weaken digestion like the alkalies. Far from doing so, its most important use is as a tonic of the alimentary system in cases of obstinate dyspepsia. As such, its action is much more powerful than that of the vegetable stomachic tonics. It is suitable for cases with too little as well as for those with too great secretion of gastric juice, no doubt because the former state of matters is obviously a result of atony, which the lime removes. It seems particularly serviceable in gouty constitutions. In the dyspepsia of hysterical and anemic cases it does not seem to be of great use. Care should be taken to tell the patient not to take it before breakfast, as it sometimes causes a degree of nausea in the morning, when the stomach is empty. It suits very well to take it immediately after meals; its alkalinity does not at all interfere with digestion. Practitioners seem generally to take up the prejudice beforehand, that saccharated lime must be liable to produce constipation, probably judging so from the action of chalk; but I wish particularly to insist that it has not, in the slightest degree, any tendency to occasion such an effect. On the contrary, it is a very valuable means of overcoming gradually that chronic constipation which is so frequent an accompaniment of dyspepsia; and persons who have for years been in the constant habit of using aperient medicines have been able to abandon them in great measure after taking this remedy for some time. In a single instance it acted as a purgative, so that its use could not be continued. It will be found serviceable in checking the diarrhoea of disordered digestion, acting as lime-water does, only that the latter is so dilute that it is often impossible to administer it to adults in the quantity desirable. Patients who take saccharated lime habitually get to like the taste, and seem to think it exhilarating. It may be found useful also in allaying the cravings of the intemperate. I have no doubt that, if it be fairly tried, practitioners will find it an exceedingly useful remedy. It may be given in doses of from 20 or 30 to 60 minims or more, in a glass of water, two or three times a day."

5. *Use and Properties of Perchloride of Iron.*—The solution of this persalt is now almost universally employed to arrest arterial or venous hemorrhage, resulting either from accident, or as a consequence of surgical operations. It has also been found useful in intestinal hemorrhage; in one case in particular, M. Demarquay, of Paris, administered, morning and evening, enemata of seven ounces of fluid, with twenty drops of the concentrated solution of perchloride of iron, and a tablespoonful of the perchloride syrup (five or six drops to the tablespoonful), where the hemorrhage from the bowels was considerable, and had resisted the ordinary remedies. The result was extremely satisfactory. The same surgeon relates a second case of extensive abscess of the shoulder, where an injection of iodine caused severe hemorrhage. This was arrested by throwing into the sac a lotion composed of seven ounces of water and ten drops of the perchloride.

In gonorrhœa and leucorrhœa, injections of the perchloride have been tried with success in weak and lymphatic subjects, the proportion of the perchloride being twenty drops to three ounces and a half of water.

As a *Hæmostatic*.—1. As a local or external hæmostatic, 3 to 5 parts chloride of iron to 100 parts of distilled water. Lint soaked in this mixture is to be applied with more or less pressure on the seat of hemorrhage. 2. As an external hæmostatic, 1 part of chloride of iron to 500 of distilled water, sweetened to taste. One tablespoonful to be given every hour, or oftener, if necessary. This formula suffices to check the fiercest hemorrhage within twenty-four hours. The same formula, without sugar, forms a useful uterine injection or astringent lavement in cholera or colliquative diarrhœa. 3. A hæmostatic and resolvent ointment is composed of 4 to 15 parts of chloride of iron to 30 of axunge.

In a letter in the *Medical Gazette*, August 27th, Mr. J. Zachariah Laurence states that having, a few months ago, drawn the attention of the profession to the powerful local styptic properties of the *solid* perchloride of iron, he has since that time found a superior method of employing it. "If the solid perchloride of iron be kept in a bottle, a small portion of it after a time deliquesces into a thick brown fluid, which is constantly kept in a state of super-saturation